

## Claims

1. A shear-card voting device having a housing, a die plate with a flat area, a machine-processable record card having a plurality of index-points that are (a) in the region of said card that rests on said flat area and (b) are unscored, a cutter guide plate, a hand-positioned cutter assembly that includes a cutter formed to shear an aperture in said card, and an electric light source mounted below the plane of said flat area in a position to direct upward toward the eye of the user a light beam through each aperture made in said card by said cutter.
2. A shear-card voting device having a housing, a die plate with a flat area, a machine-processable record card having a plurality of index-points that are (a) in the region of said card that rests on said flat area and (b) are unscored, a cutter guide plate, a hand-positioned cutter assembly that includes a cutter formed to shear an aperture of at least 1 mm diameter in said card, and an electric light source mounted below the plane of said flat area in a position to direct upward toward the eye of the user a light beam through each aperture made in said card by said cutter, said beam having a minimum cross-sectional area at least as large as the area of said aperture.
3. A shear-card voting device having a housing, a die plate with a flat area, a machine-processable record card having a plurality of index-points that are (a) in the region of said card that rests on said flat area and (b) are unscored, a cutter

guide plate, a hand-positioned cutter assembly that includes a cutter formed to shear an aperture in said card, and an electric light source mounted below the plane of said flat area in a position to direct upward toward the eye of the user a light beam through each aperture made in said card by said cutter, said device also having a mask that prevents the voter from cutting any aperture in said card at any index point that does not represent an allowable choice for the voter, said mask having a dark top surface that enhances the feedback from said beam.

4. A shear-card voting device having a housing, a die plate with a flat area, a machine-processable record card having a plurality of index-points that are (a) in the region of said card that rests on said flat area and (b) are unscored, a cutter plate guide, a hand-positioned cutter assembly that includes a cutter formed to shear an aperture in said card, and an electric light source mounted below the plane of said flat area in a position to direct upward toward the eye of the user a light beam through each aperture made in said card by said cutter, and said device also includes a means to constrain the central axis of said assembly to move about said cutter, said area substantially at right angles thereto.
5. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said cutter is round and has a negative outer diameter taper.
6. A shear-card voting device according to claims 1, 2, 3, or 4 wherein a Harris Ballot Book is mounted above said cutter guide plate.

7. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said die plate and said cutter guide plate are doweled together as a subassembly on opposite sides of a slot containing said record card.
8. A shear-card voting device according to claims 1, 2, 3, or 4 wherein a limit switch is mounted adjacent to the slot containing said record card and is connected in series with said electric light source.
9. A shear-card voting device according to claim 6 wherein said Harris Ballot Book that when open to the last two pages has votable items on the left page and an admonition to the voter to leaf through all the pages of said book to verify that all votes are correct, complete, and not overvoted.
10. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said cutter is a subassembly that includes the reverse taper cutting tip, a transparent disc at least 15 mm in diameter, and a handle.
11. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said housing is made of translucent colored plastic.
12. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said cutter assembly is mounted on a kinematic linkage that constrains it to remaining perpendicular to said flat area at all times.

13. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said cutter is made of a metal that is non-galling with the metal of said cutter guide plate and the metal of said die plate.
14. A shear-card voting device according to claims 1, 2, 3, or 4 wherein said light source has at least two illuminators that straddle the region where cutouts from said record-card fall by gravity, and one of said illuminators is a mirror.
15. A shear-card voting device according to claim 5 wherein said negative taper has a circular profile with a radius equal to the diameter of said cutter tip and a center at the opposite end of said diameter.
16. A shear-card voting device according to claim 13 wherein one of the links of said kinematic linkage has X-bracing.